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Electron paramagnetic resonance in impure superconductors of the second kind under conditions of fluctuation pairing of conduction electrons

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Abstract

Coupled equations are obtained for the transverse dynamic susceptibilities of paramagnetic impurities and conduction electrons in an impure superconductor of the second kind in a magnetic field somewhat higher than the upper critical field Hc2 under the conditions of fluctuation pairing of the conduction electrons. The fluctuation corrections to the shift and line-width of the magnetic resonance are determined in the paramagnetic impurities and the conduction electrons. The magnetic resonance parameters are investigated under the conditions of coupled motion of the magnetic moments of the impurities and the conduction electron spins in the presence of superconducting fluctuations. © 1979 Plenum Publishing Corporation.

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